

Title (en)  
PULLEY STRUCTURE

Title (de)  
FLASCHENZUGSTRUKTUR

Title (fr)  
STRUCTURE DE POULIE

Publication  
**EP 2865925 A4 20160413 (EN)**

Application  
**EP 13807425 A 20130620**

Priority  
• JP 2012138978 A 20120620  
• JP 2012252550 A 20121116  
• JP 2013125839 A 20130614  
• JP 2013066939 W 20130620

Abstract (en)  
[origin: EP2865925A1] The present invention relates to a pulley structure containing a first rotatable body having a cylindrical shape, over which a belt is stretched, a second rotatable body that is provided inward of the first rotatable body so as to be rotatable relative to the first rotatable body, and a torsional coil spring that is accommodated in a space between the first rotatable body and the second rotatable body, in which the torsional coil spring has one end region at one end side thereof, the outer circumferential surface of which is in contact with one rotatable body of the first rotatable body and the second rotatable body due to the self elastic restoring force of the torsional coil spring in a diameter increasing direction when the pulley structure is in a stopped state, the other end region at the other end side thereof, the inner circumferential surface of which is in contact with the other rotatable body when the pulley structure is in the stopped state, and a middle region, and in which when the torsional coil spring is twisted in the diameter increasing direction due to a relative rotation between the two rotatable bodies, the inner circumferential surface of at least a circumferential portion of the other end region of the torsional coil spring separates from the other rotatable body.

IPC 8 full level  
**F16D 3/74** (2006.01); **F16D 13/08** (2006.01); **F16D 41/20** (2006.01); **F16F 15/123** (2006.01); **F16F 15/129** (2006.01); **F16H 55/36** (2006.01)

CPC (source: CN EP KR US)  
**F16D 3/12** (2013.01 - EP); **F16D 3/74** (2013.01 - KR US); **F16D 13/08** (2013.01 - KR US); **F16D 41/20** (2013.01 - KR US);  
**F16D 41/206** (2013.01 - EP US); **F16F 15/1216** (2013.01 - EP); **F16F 15/123** (2013.01 - KR US); **F16F 15/129** (2013.01 - KR US);  
**F16H 55/36** (2013.01 - CN EP KR US); **F16H 2055/366** (2013.01 - US)

Citation (search report)  
• [X] EP 2258968 A1 20101208 - JTEKT CORP [JP]  
• [X] US 2595454 A 19520506 - GREENLEE HARRY R  
• See references of WO 2013191240A1

Cited by  
EP3614021A4; EP3604860A4; US11274739B2; US11668386B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2865925 A1 20150429; EP 2865925 A4 20160413; EP 2865925 B1 20200729**; BR 112014032232 A2 20170627;  
BR 112014032232 B1 20220125; CA 2877099 A1 20131227; CA 2877099 C 20181016; CN 104428563 A 20150318; CN 104428563 B 20170419;  
IN 10887DEN2014 A 20150911; JP 2014114947 A 20140626; JP 5914416 B2 20160511; KR 101954892 B1 20190306;  
KR 20150021948 A 20150303; US 2015184703 A1 20150702; US 9611903 B2 20170404; WO 2013191240 A1 20131227

DOCDB simple family (application)  
**EP 13807425 A 20130620**; BR 112014032232 A 20130620; CA 2877099 A 20130620; CN 201380032657 A 20130620;  
IN 10887DEN2014 A 20141219; JP 2013066939 W 20130620; JP 2013125839 A 20130614; KR 20147035827 A 20130620;  
US 201314409346 A 20130620